

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>B02/0965PC</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/000447</b>	International filing date (day/month/year) <b>21.01.2004</b>	Priority date (day/month/year) <b>21.01.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>C09K 5/10, 5/20</b>			
Applicant <b>BASF AKTIENGESELLSCHAFT</b>			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input checked="" type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/000447

Box No. I

Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-10 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-18 \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- sheets \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. II

Priority

1. ☒ This report has been established as if no priority had been claimed due to the failure to furnish within the prescribed time limit the requested:
- ☒ copy of the earlier application whose priority has been claimed (Rule 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 66.7(b)).
2. ☐ This report has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rule 64.1). Thus for the purposes of this report, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/000447

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	5, 7-11, 15-18	YES
	Claims	1-4, 6, 12-14	NO
Inventive step (IS)	Claims	7	YES
	Claims	1-6, 8-18	NO
Industrial applicability (IA)	Claims	1-18	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: GB 2 059 432

D2: DE 195 25 090 (cited in the application)

D3: DE 196 05 509 (cited in the application)

1. Novelty

1.1 The application fails to meet the requirements of PCT Article 33(1) because the subject matter of claims 1 to 4, 6 and 12 to 14 is not novel (PCT Article 33(2)).

Document **D1** discloses (see examples 1 to 3 and claims 1 and 2) coolants based on 1,2-alkylene glycol. The compositions include, *inter alia*, sodium metasilicate and triethanolamine. The subject matter of claims 1 to 4, 6 and 12 to 14 therefore lacks novelty.

1.2 The subject matter of claims 5, 8 to 11, 15 and 16 differs from that of **D1** by virtue of the presence of additional components or more specific components.

1.3 The subject matter of claim 7 differs from that of **D1**

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

by virtue of the absence of borate.

- 1.4 The subject matter of claims 17 and 18 differs from that of D1 in that the uses are different.

2. Inventive step

- 2.1 The application fails to meet the requirements of PCT Article 33(1) because the subject matter of claims 5, 8 to 11 and 15 to 18 does not involve an inventive step (PCT Article 33(3)).

The additional components or more specific components listed in claims 5, 8 to 11, 15 and 16 are standard components or variations and cannot be considered inventive. Attention is drawn to documents D2 and D3 (cited by the applicant). For example, D2 uses stabilised silicates instead of silicates (see page 3, lines 59 to 60), and thus describes the subject matter of claim 5 in the present application.

The use of heat transfer fluids in solar units, as claimed in claims 17 and 18, can only be regarded as an alternative use of a heat transfer fluid. Taking D1 as a starting point, a person skilled in the art would learn from D3 that the use of heat transfer fluids in solar units is already known.

- 2.2 The subject matter of claim 7 differs from that of D1 in that there is no borate. The applicant has sought to demonstrate (see the example and comparative examples) that the technical effect of this distinguishing

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

feature is improved corrosion resistance in the borosilicate glass used in solar units in comparison with the heat transfer fluids according to the invention. This assertion is unacceptable because it is not apparent from the comparative tests involving the claimed Concentrate 1 that the technical effect is due to the absence of borate or the addition of stabilised sodium metasilicate. Thus the technical problem addressed is simply that of providing new heat transfer fluids. The solution offered in the claim is non-obvious because the combination of aliphatic amines and silicates without borates is neither mentioned in nor suggested by the prior art.